UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,350	12/20/2000	Janet Doong	2204/A44	9258

34845	7590	03/11/2005	

STEUBING AND MCGUINESS & MANARAS LLP
125 NAGOG PARK
ACTON, MA 01720

EXAMINER
BARQADLE, YASIN M

ART UNIT	PAPER NUMBER
2153	

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/747,350	DOONG ET AL.
	Examiner	Art Unit	
	Yasin M Barqadle	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 November 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-111</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-11</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Response to Amendment

Applicant's arguments filed on November 03, 2004 have been
considered but are not deemed to be persuasive.

- Claims 1-11 are presented for examination.

- Independent claims 1 and 7 are amended.

Response to Arguments

Page 6, paragraph 3, Applicant argues that Marques et al
does not hint or suggest `` any system or method for storing
changed routes in a route change queue that is separate from
the routing table''. Examiner notes that Marques et al, in
addition to using indexes to allow routing protocols to
identify new or modified routes as shown and discussed in
figs 9,10 and 11, discloses a process where routing
protocols 220(1)-(N) send a routing change to routing table
module 230 in order to effect a change to routing table 240.
If the change to routing table 240 is a deletion, the route
entry is deleted by updating the route to indicate the
deletion (route change). Next, the route entry being deleted
is moved to the MRM position. Marques et al use a filtering
mechanism to notify of the deletion (route changes). One way
to implement filtering is to apprise routing table module
230 of the need for one (or more) of routing protocols
220(1)-(N) to be notified of changes in routes by one or

more of routing protocols 220(1)-(N). This is achieved by

properly selecting the notifications sent out by routing

table module 230, and so is preferably implemented within

routing table module 230(see figs 5A and col. 9, lines 8-

33). Note: routing table module 230 is separate from routing

table 240 as shown in fig. 2.

Furthermore, Marques et al suggests using buffers to

separate the actions of updating routing table 140 and

notifying routing protocols of the change. One means of

effecting such a separation is through the use of buffers to

hold the notifications (col.2, lines 33-42 and col. 3, lines

1-3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in

this Office action:

> (a) A patent may not be obtained though the invention is not
> identically disclosed or described as set forth in section 102 of
> this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a
> whole would have been obvious at the time the invention was made to
> a person having ordinary skill in the art to which said subject
> matter pertains. Patentability shall not be negatived by the manner
> in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Marques et al USPN (6643706) in view of

Applicant Admitted Prior Art (hereinafter ``AAPA'').

As per claim 1, Marques et al teach a method for
synchronizing a route change in a routing table with a
plurality of routing protocols (fig. 2, 220(1-N)) in a
network device in a communication network device, the method
comprising (abstract and fig. 2):

assigning a route ID value (route entries 310 (1)-(N)
to each route in the routing table (routing table 240, fig
2) [col.6, lines 21-66 col. 9, lines 8-33];

assigning a bookmark in a route change queue to each
routing protocol, the bookmark having a value equivalent to
the route ID value of the last route processed by the
routing protocol, wherein the route change queue is separate
from the routing table [see figs 5A and col. 9, lines 8-33;
col. 13, line 1-41 and col.14, lines 2-60];

assigning a new route ID value to each route changed in
the routing table [as routes change node's index is set to
current value col. 9, lines 8-33 and col. 13, lines 11-41];

storing each route changed in the route change queue
[col. 12, lines 27 to col. 13, line 46 and col. 15, lines 5-
28. see also col.2, lines 33-42]; and

comparing the bookmark value of each routing protocol
to the highest route ID value in the route change queue
[col. 13, lines 11-41; col. 15, lines 5-28 and col. 16,
lines 26-50. see also figs 10-11].

Although Marques et al shows substantial features of
the claimed invention including plurality of routing

protocols, he does not explicitly show a multicast routing
protocol.

Nonetheless, this feature is well known in the art and
would have been an obvious modification of the system
disclosed by Marques et al, as evidenced by AAPA.
In analogous art, AAPA disclose a multicast routing protocol
associated with multicast packets [page 1, last paragraph
and page firs paragraph]. Giving the teaching of AAPA, a
person of ordinary skill in the art would have readily
recognized the desirability and the advantage of modifying
Marques et al by employing the multicasting routing protocol
of AAPA for the benefit of allowing information providers to
transmit a packet of multicast information simultaneously to
a plurality of consumers in a multicast group.

As per claim 2, Marques et al teach the method according to
claim 1, wherein the route change is the addition of a new
route to the routing table [col. 15, lines 10-23].

As per claim 3, Marques et al teach the method according to
claim 1, wherein the route change is the deletion of a route
from the routing table [col. 15, lines 10-23].

As per claim 4, Marques et al teach the method according to
claim 1, wherein the route change is updating a route in the
routing table [col. 15, lines 10-23].

As per claim 5, Marques et al teach the method according to claim 1, further including processing routes in the route change queue with route ID values greater than the bookmark value of the routing protocol [col. 13, lines 11-41 and col.14, lines 2-60].

As per claim 6, Marques et al teach a route entry for a route in a routing table for a plurality of routing protocols (fig. 2, 220(1-N)), the route entry comprising (fig. 1 and 2):

an address for the route source network [address of source node fig. 8, 810 (1) col. 12, lines 27-51];

an address for the next hop of the route [address of the next hop node fig. 8, 810 (2) col. 12, lines 27-51];

an address for the next hop interface of the route [interface of next hop node fig. 8, 810 (2) col. 12, lines 27-51];

a route state value for indicating the current state of the route [col. 4, lines 15-35 and col. 10, lines 9-39];

a routing protocol identifier for identifying the routing protocol associated with the route [col. 8, lines 30 to col. 9, line 7]; and

a route ID value for determining when the route entry has been processed by each of the plurality of routing protocols [col. 11, lines 1-27 and col. 13, lines 11-57].

As per claim 7, Marques et al teach a computer program product for use on a computer system for synchronizing a route to change in a routing table with a plurality of routing protocols (fig. 2, 220(1-N)) in a network device in a communication network, the computer program product comprising a computer useable medium having computer readable program code thereon [figs 5A and 5B and col. 10, lines 8-37]:

the claim includes similar limitations as discussed in claim 1 above. Therefore, it is rejected with the same rationale.

As per claim 8, Marques et al teach the computer program product according to claim 7, wherein the route change is the addition of a new route to the routing table [col. 15, lines 10-23].

As per claim 9, Marques et al teach the computer program product according to claim 7, wherein the route change is the deletion of a route from the routing table [col. 15, lines 10-23].

As per claim 10, Marques et al teach the computer program product according to claim 7, wherein the route change is updating a route in the routing table [col. 15, lines 10-23].

As per claim 11, Marques et al teach the computer program

product according to claim 7, further including program code

for processing routes in the route change queue with route

ID values greater than the bookmark value of the routing

protocol [Figs 10 and 14; col. 13, lines 11-41 and col.14,

lines 63 to col. 15. line 23].

Conclusion

ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is

reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final

action is set to expire THREE MONTHS from the mailing date

of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the

advisory action is not mailed until after the end of the

THREE-MONTH shortened statutory period, then the shortened

statutory period will expire on the date the advisory action

is mailed, and any extension fee pursuant to 37 CFR 1.136(a)

will be calculated from the mailing date of the advisory

action. In no event, however, will the statutory period for

reply expire later than SIX MONTHS from the date of this

final action.

The prior made of record and not relied upon is

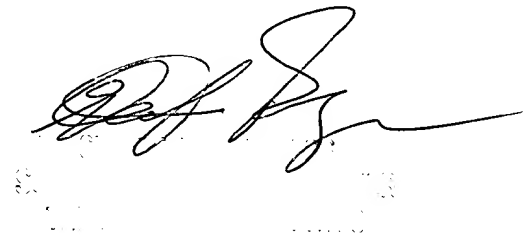considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Barqadle whose telephone number is 703-305-5971. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 703-305-4792. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Yasin Barqadle